

NOTE:

1. Furnish and install liquid filled compartmental type pad mounted transformer(s) as follows:
 300 KVA, 3 Phase, 60 Hz.
 Primary Voltage 7200/12470 Wye 95 BIL
 4 - 2-1/2% FC BN Taps
 277/480 Secondary Voltage Wye
 4% Impedance
 65° C. Temperature Rise
 Insulating Oil Coolant

The transformer shall comply with the latest applicable standards of the National Electrical Manufacturers Association (NEMA) and the American National Standards Institute (ANSI).

The transformer shall be compartmental type, self-cooled, temperproof and weatherproof for mounting on a pad. There shall be a transformer tank, high voltage compartment and low voltage compartment assembled as an integral unit.

The core and coil assembly shall be wound core type with aluminum windings. The assembly shall be designed to reduce losses and noise and provide adequate short-circuit strength and heat dissipation. A tap changing mechanism shall be provided for accurate voltage adjustment without opening the transformer tank. The tap changing mechanism shall be provided for accurate voltage adjustment without opening the transformer tank. The tap changing mechanism shall be externally operated and shall be for de-energized operation only.

The high and low voltage compartments shall be located side-by-side separated by a steel barrier. Terminal compartments shall be full height, air filled with individual doors. The high voltage door fastenings shall not be accessible until the low voltage door has been opened. ANSI tank grounding provisions shall be furnished in each compartment.

The high voltage terminations and equipment shall be:

Dead front and conform to ANSI C57.12.26 requirements. Provide one-piece integrated bushings for use with elbow terminators and parking stands for mounting accessory equipment. Bushings or wells shall be externally clamped.

The terminations and equipment shall be arranged for radial feed.

Provide Bay-O-Net type current limiting fuses externally replaceable with distribution hot stick without opening the transformer tank.

The low-voltage bushings shall be molded epoxy and provided with blade type spade terminals with NEMA standard hole spacing arranged for vertical take-off. The low voltage neutral shall be an insulated bushing grounded to the transformer tank by a removable grounding strap. Wye-wye connected transformers shall have the high and low voltage neutrals internally tied with a removable link for testing.

Provide an internal oil immersed circuit breaker with operating handle accessible in the low voltage compartment.

Furnish the following accessories:

1. One-inch drain valve with sampling device.
2. Dial-type thermometer.
3. Liquid level gauge.
4. Pressure-vacuum gauge.
5. Pressure relief valve.

2. A. Wires and Cables, High Voltage:

Ratings: 15 KV For 12.47 KV system (normal supply).

High voltage cable shall be #6 AWG, three conductor shielded, for a 3-phase grounded system with copper conductors and a copper shield, and chemically cross-linked thermosetting polyethylene insulation. Cable shall be General Electric Company "Walkens", Rome Cable Company "XLP", Anaconda, General Cable Company or approved equal. All such cable shall be in accordance with and conform to the latest requirements of the Insulated Power Cable Engineers Association (IPCEA).

Stress cones are required at all splices and terminations.

All conductor terminals, taps and splices shall be made in accordance with wire manufacturer recommendations. All contact surfaces shall be cleaned to assure maximum conductivity.

All 15 KV conductor and cable connections shall be made with approved termination and splicing kits containing the required and necessary connectors and insulating materials for the cables and voltages noted on the drawings. Kits shall be equal to G & W Company, Anaconda or GE Company.

All high-voltage cables shall be provided with plastic or lead tags and plastic ties showing the size and voltage of cable, load the cable feeds such as building or equipment identification, phase identification, and date the cable was first energized. Locate tags at every splice and termination.

Test Report Submittal: Submit five copies of all manufacturer's test data for approval. No high-voltage cable shall be installed in any conduit or duct or other raceway until these test reports have been accepted and approved by the Engineer.

Accepted Tests: All tests shall be performed in the presence of the Engineer.

Test voltage and procedures shall conform to IPCEA standard and as approved by the cable manufacturer.

Final test voltage time shall be 5 minutes.

Submit five copies of test reports and test data.

Before energizing the system, check all connections and switch positions. Obtain necessary clearances, approvals and instructions from Owner.

High-Voltage Cable Installation: Bona fide manufacturer's representative shall be present during high-voltage cable installation. He shall approve the method of installation and shall approve materials and method for cable splices and terminations. He shall certify in writing that the cable has been properly installed and the cable splices and terminations have been properly made.

B. Trenching & Backfilling:

The Electrical Contractor shall provide all necessary trenching and backfilling for underground feeders and branch circuits. These conductors shall be installed with a minimum cover of 30 inches.

Trenches shall be not less than 8 inches wide nor more than 16 inches wider than the largest conduit or feeder to be laid, and shall be excavated to a minimum over depth of 4 inches. Overdepth rock excavation shall be backfilled with loose, moist earth thoroughly compacted to 90%. All grading that is in the vicinity of excavation shall be controlled to prevent surface ground water from flowing into the excavations. Any water accumulated in the excavation shall be removed by pumping or other approved method.

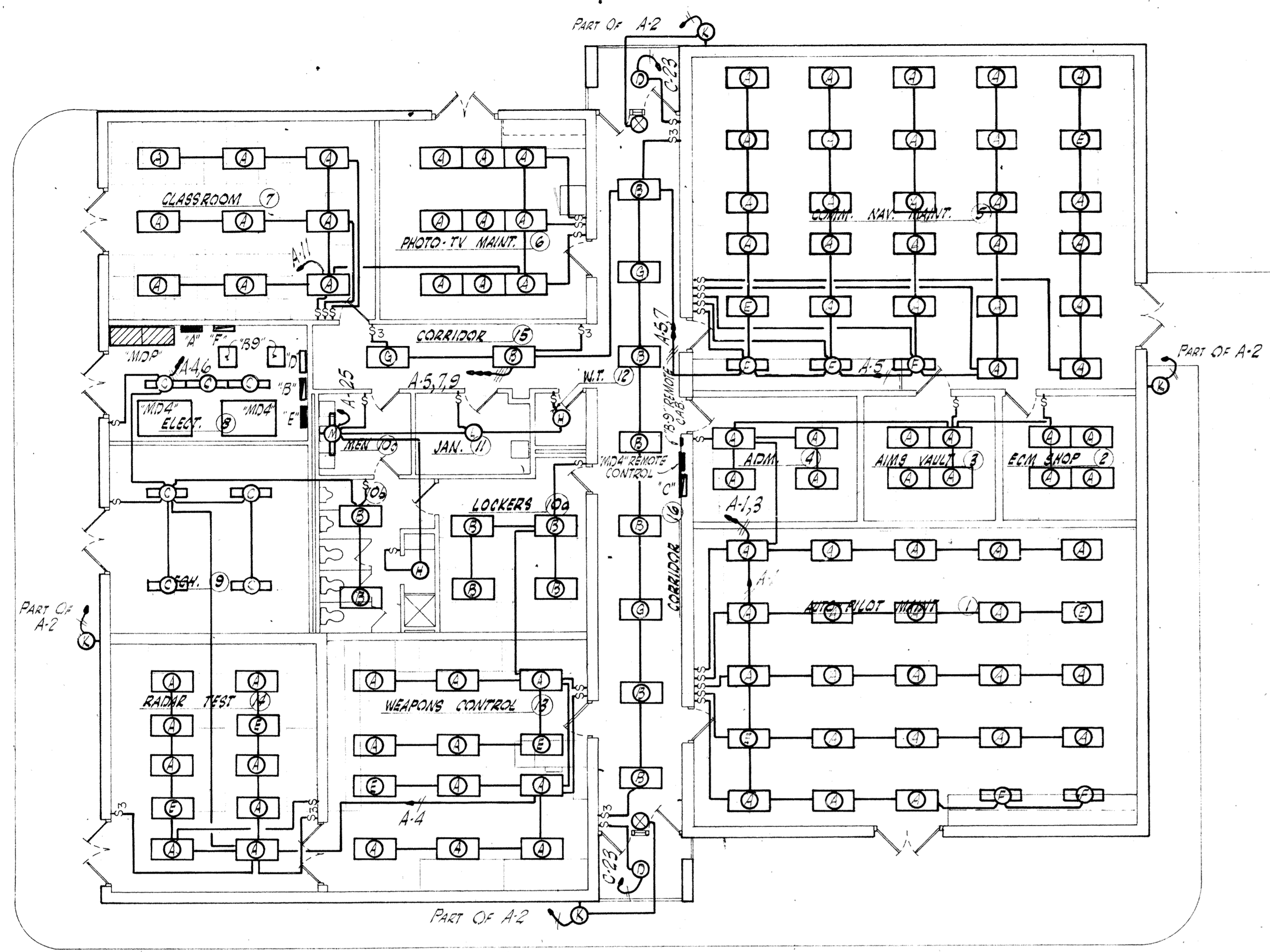
Trenches shall be carefully backfilled with excavated materials approved for backfilling or other approved materials free from large clods of earth or stone, deposited in thoroughly and carefully compacted 6-inch layers, until the feeders or conduits have a cover of not less than 30 inches. The remainder of backfill shall then be placed in trench and tamped. Blasted rock, broken concrete or other construction trash shall not be used as backfill material. Any trenches improperly backfilled, or where settlement occurs, shall be reopened to depth required for proper compaction, then refilled, mounted over and smoothed off.

3. Furnish and install double 8 foot crossarm below existing conductor carrying crossarms for underground drop for 300 KVA transformer.

Furnish three S & C Type SX open cutouts to be mounted on crossarms fused in accordance with transformer supplier recommendations.

Also furnish and install on crossarms three lightning arrestors.

Furnish and install high voltage terminators for service drop to transformer.



NOTE: Fixtures "E" & "G" are furnished w/battery operated emergency lts. for egress in case of power failure.

FLOOR PLAN

1/8" = 1'-0"

